WSDOT Test Method T 408

Method of Test for Quality of Water to be Used in Mixing Concrete

1. Scope

   a. This method is intended for laboratory use in determining the quality of water to be used in mixing concrete.

2. Apparatus

   a. Porcelain evaporating dish with 3.4 oz. (100 ml) minimum capacity.

   b. 3.4 oz. (100 ml) pipet.

   c. Drying oven maintained at 212°F (100°C).

   d. Analytical balance.

3. Procedure

   a. Pipet 3.4 oz. (100 ml) of sample into a weighed porcelain evaporating dish and record total weight (mass). Evaporate to dryness, cool in a desiccator and reweigh, using analytical balance for all weighing.

4. Calculation

   a. $\frac{\text{g of residue}}{\text{g of sample}} \times 10^6 = \text{ppm total solids}$

5. Report

   a. Report the results using one or more of the following:

      - Materials Testing System (MATS)
      - WSDOT Form 350-034
      - Form approved in writing by the State Materials Engineer

      Note: The determination of the composition of the mineral matter in the water requires a complete chemical analysis and is not generally undertaken except when the percentage of total solids is above 1,000 ppm. When the mineral analysis is desired, the procedure starting on page 2388 of Scott's Standard Methods of Chemical Analysis, Sixth Edition (1963), Volume II, should be used. The results should be reported as the separate constituents in parts per million. If the hypothetical combination into salts is desired, the method given by Scott, or the method given on page 336, Volume V, Number 5, Industrial and Engineering Chemistry, should be used.